

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) In a radio access network (RAN) where information may be sent to a mobile radio unit using a dedicated radio channel dedicated to a mobile radio unit during a communication or using a shared radio channel shared by other mobile radio units during the communication, a method comprising:

establishing between a first RAN node corresponding to a controlling radio network controller (CRNC) and a second RAN node corresponding to a base station (BS) a first RAN transport bearer to transport from the CRNC to the BS data to be transmitted on the shared radio channel by the BS, and

establishing between the CRNC and the BS a second RAN transport bearer to transport control information originated in the CRNC relating to the first transport bearer data to the BS.

2. (Previously Presented) The method in claim 1, further comprising:
the CRNC transmitting the control information over the second transport bearer to the BS.

3. (Original) The method in claim 1, wherein the control information includes scheduling information.

4. (Original) The method in claim 1, wherein the control information indicates information needed by the mobile radio unit to decode the data transmitted over the shared radio channel.

5. (Original) The method in claim 4, wherein the needed information includes one or more of the following: a frame identifier, a radio channel identifier, and an indication of how different radio channels are multiplexed on the identified frame.

6. (Original) The method in claim 1, wherein the control information includes transport format information.

7. (Original) The method in claim 1, wherein the control information includes a transport format indicator.

8. (Original) The method in claim 7, wherein the transport format indicator includes a frame identifier and an index to a lookup table stored in the mobile radio unit containing information relating to how a transport channel is multiplexed on the shared radio channel, wherein the shared radio channel is specified by a channelization code and a spreading factor.

9. (Canceled).

10. (Original) The method in claim 1, wherein information may be sent to the mobile radio unit using a dedicated radio channel, the method further comprising:

establishing a third transport bearer to carry dedicated radio channel data and dedicated radio channel control information through the RAN for transmission to the mobile radio unit on the dedicated radio channel.

11. (Currently Amended) The method in claim 10, wherein the dedicated radio channel carries the dedicated control information and the control information originated at the CRNC to the mobile radio unit.

12. (Previously Presented) The method in claim 10, wherein the CRNC is a drift radio network controller (DRNC), and wherein the RAN includes a third RAN node corresponding to a serving radio network controller (SRNC) coupled to the DRNC, the method further comprising:

the SRNC providing data to be transmitted to one or more mobile radio units to the DRNC over the third transport bearer.

13. (Original) The method in claim 11, wherein the third transport bearer is established between the SRNC and the DRNC and between the DRNC and the BS.

14. (Original) The method in claim 11, wherein the third transport bearer is established between the SRNC and the BS.

15. (Currently Amended) In a radio communications system including a radio access network (RAN) with a serving radio network controller (SRNC) coupled to one or more radio base stations and a drift radio network controller (DRNC) coupled to one or more radio base stations, where the base stations for supporting communications communicate with mobile radio units over a radio interface using radio channels, a method comprising:

establishing a first RAN transport bearer to transport information supervised by the SRNC for transmission by a base station over a dedicated radio channel to a mobile radio unit;

establishing a second RAN transport bearer to transport information supervised by the DRNC for transmission by the base station over a shared radio channel to the mobile radio unit; and

establishing a third RAN transport bearer to transport DRNC-originated information from the DRNC to the base station.

16. (Original) The method in claim 15, wherein the DRNC-originated information relates to the information supervised by the DRNC.

17. (Original) The method in claim 16, wherein the DRNC-originated information is a traffic format indication message originated by the DRNC.

18. (Original) The method in claim 17, wherein the traffic format indication message originated by the DRNC instructs the mobile radio unit how to receive information on the shared radio channel.

19. (Original) The method in claim 15, further comprising:
the DRNC transporting DRNC-originated information over the third transport bearer for instructing the mobile radio unit how to receive information on the shared radio channel.

20. (Currently Amended) A computer-generated data signal embodied in an electrical signal transported on a radio access network (RAN) transport bearer established

between a first RAN node corresponding to a drift radio network (DRNC) coupled to a serving radio network controller (SRNC) controller and a second RAN node corresponding to a base station, where the base stations communicates via a radio channel with one or more mobile radio units, comprising:

a frame number field including a specific frame number corresponding to a frame on a the radio channel, and

a transport format field including information relating to a particular radio channel resource useable by a mobile radio unit to receive information directed to the mobile radio unit from the base station.

21. (Original) The computer-generated data signal in claim 20, wherein the transport format field includes information that may be used to address a transport format table stored in a mobile radio unit.

22. (Original) The computer-generated data signal in claim 20, wherein the transport format field contains information that may be used by a mobile radio unit to receive information intended for the mobile radio unit carried on a shared radio channel.

23. (Original) The computer-generated data signal in claim 20, wherein the transport format field includes a transport format combination indicator (TFCI) generated by the drift radio network controller.

24. (Currently Amended) For use in a radio access network (RAN) where information may be sent to one or more mobile radio units using a dedicated radio channel dedicated to a mobile radio unit during a communication or using a shared radio

channel during the communication, a RAN node for communicating with a base station, comprising:

a controller configured to establish a first logical RAN transport bearer ~~to~~ between the RAN node and the base station to transport user data to be transmitted on the shared radio channel, and to establish a second transport bearer between the RAN node and ~~to~~ the base station to transport control information originated in the RAN node,

wherein the control information indicates to a mobile radio unit receiving transmissions from the base station information needed to decode information transmitted over the shared radio channel.

25. (Canceled)

26. (Currently Amended) The RAN node in claim ~~25~~24, wherein the needed information includes one or more of the following: a frame identifier, a radio channel identifier, and an indication of how different radio channels are multiplexed on the identified frame.

27. (Original) The RAN node in claim 24, wherein the control information includes transport format information.

28. (Original) The RAN node in claim 27, wherein the control information includes a transport format indicator.

29. (Original) The RAN node in claim 28, wherein the transport format indicator includes a frame identifier and information that is useable by a mobile radio to address a lookup table stored in the mobile radio containing information relating to how a radio

channel is multiplexed in the identified frame, wherein the radio channel is specified by a channelization code and a spreading factor.

30. (Currently Amended) The RAN node in claim 24, wherein the ~~first~~ RAN node is a drift radio network controller (DRNC) configured to communicate with a serving RNC (SRNC).

31. (Original) The RAN node in claim 30, wherein the controller is configured to establish a third transport bearer to the base station to transmit data be transmitted on a dedicated radio channel.

32. (Currently Amended) A radio access network (RAN), comprising:
a serving radio network controller (SRNC) for initially establishing a connection with a mobile radio unit over a radio interface;

a drift radio network controller (DRNC) for providing resources to the SRNC to support the connection; and

a base station associated with the DRNC for conveying user data connection information to the mobile unit over a shared radio channel shared by other mobile radio units during communication with the mobile radio unit,

wherein the DRNC is configured to establish a first RAN transport bearer between the DRNC and the base station to transport the user data connection information from the DRNC to the base station to be sent on the shared radio channel and a second RAN transport bearer between the DRNC and the base station to transport control information related to the connection information from DRNC to the base station.

33. (Original) The radio access network in claim 32, wherein the SRNC is configured to establish a third transport bearer to carry connection information to be transmitted on a dedicated radio channel between the base station and the mobile radio unit.

34. (Original) The radio access network in claim 33, wherein the SRNC is configured to establish the third transport bearer with the base station.

35. (Original) The radio access network in claim 33, wherein the SRNC is configured to establish the third transport bearer with the base station by way of the DRNC.

36. (Original) The radio access network in claim 32, wherein the control information includes one or more of the following: a frame identifier, a radio channel identifier, and an indication of how different radio channels are multiplexed in the identified frame.

37. (Original) The radio access network in claim 32, wherein the control information includes transport format information.

38. (Original) The radio access network in claim 32, wherein the control information includes a transport format indicator.

39. (Currently Amended) A radio access network (RAN) where information may be sent to a mobile radio unit using a shared radio channel shared by other mobile radio units during a communication with the mobile radio unit, comprising:

first means for establishing between a controlling radio network controller (CRNC) and a base station (BS) a first logical RAN transport bearer to transport data to be transmitted on the shared radio channel, and

second means for establishing between the CRNC and the BS a second logical RAN transport bearer for transporting control information originated in the CRNC relating to the first transport bearer data.

40. (Previously Presented) The RAN in claim 39, wherein the CRNC is a drift radio network controller (DRNC) .

41. (Currently Amended) The ~~radio access network~~ RAN in claim ~~32~~39, wherein a shared radio channel is a different type of radio channel than a dedicated radio channel.

42. (Currently Amended) ~~THE~~The RAN in claim 39, wherein a shared radio channel is a different type of radio channel than a dedicated radio channel.